

E-mail: A Tool for Exchange of Information in Libraries

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The advent of E-mail has opened new gates for a highly efficient mode of information exchange. This paper, in addition to giving an overview of the concept of E-mail, discusses the possible application of this new tool in various activities of a modern library. A typical case has been described to show its effectiveness in acquisition of books for a library. The paper also presents the extent of usage of E-mail in a few selected libraries from whom data was collected through a questionnaire.

1 Introduction

The basic objective of a library is to acquire, process and disseminate right information to the right user at the right time. In order to achieve these objectives, librarians have been adopting various tools and techniques offered by information technology from time to time. For communication purposes, libraries have been using telephone, telex, facsimile, etc. But now computers and telecommunication technologies have brought revolutionary changes in the communication process by providing E-mail which is quicker, convenient and more cost effective than most of the other modes of communication. Application of E-mail in library communication would enable the library and information professionals to meet the information needs of the information seekers by providing timely and qualitative services. There have been proposals to have round the clock librarianship [1] and extended library hours [2]. The aim of present libraries will not only be up-to-date but up-to-the-minute information [3]. The Five Laws of Library Science propounded by Dr. S.R. Ranganathan are profound and most relevant to the current context of advancements in the frontiers of information technology. The present study deals with the fourth law of

Library Science, "Save the time of the reader" and its corollary, "Save the time of the library professionals".

2 Objective

To highlight the use of E-mail in Library and Information Services, in order

- to save the time of the reader, and
- to save the time of the library and information professionals.

3 Concept of E-mail

E-mail stands for electronic mail. In his article on electronic mail in the eighth edition of the McGraw-Hill Encyclopedia of Science and Technology, Edward Krol defined E-mail as "asynchronous transmission of messages by using computer and data communication networks". The basic requirements of E-mail are computer, modem and telephone line [4].

E-mail consists of three basic elements — header, message body and signatures [5]. Header consists of sender's and recipient's address. Message can be created using text editor provided with E-mail package or it can be typed using word-processor and then cut and pasted into the E-mail software. A file, which may be either text or image, could also be sent as attachment. A mailer program deposits the E-mail message into an electronic mail box. Another program converts the message into Transmission Control Protocol (TCP) packets and further into Internet Protocol (IP) packets. This program then sends IP packets across the network. Gateways identifying the IP packets send it to the intended destination. Further the IP packets at the destination are reassembled by TCP back into the message. The E-mail message is stored in the recipient's electronic mail box until he or she retrieves the message. Once the recipient of the message retrieves the message, he or she can respond to it, print, forward, file or delete the message [6]. Signatures consist of full name and E-mail address of the sender.

In order to use E-mail software conveniently, it needs to be flexible, compatible and secure.

The commonly used E-mail softwares are PINE, Internet mail, Eudora, Outlook and Netscape mail among others.

4 E-mail in Library and Information Services

E-mail could be applied in the correspondences related to

acquisition, circulation, reference, documentation and administrative services (Table 1).

Table 1. Application of E-mail in Various Areas of Library and Information Services (LIS)

Acquisition	Circulation	Reference	Documentation	Administrative
Collection development	Membership queries	Reference Service (CAS)	Current Awareness messages	Broadcasting
Ordering	User education	Conducting interviews	Selective Dissemination of Information (SDI)	Intra-library communication
Reminders	Reservation	www documents		
Approval lists	Intimation			
	Reminder			
	Resource Sharing			

4.1 Acquisition

Acquisition includes procurement of serials and non-serial publications.

Serials: New subscriptions, renewal of subscription, discontinuation of subscription, claim for missing issues, reminders, etc could be carried out through E-mail at a faster rate.

Non-serials: Correspondences such as placing orders, sending an approval list of publications to committee members of the library, sending reminders to vendors could be also be carried out through E-mail. For better collection, prescribed forms could be sent through E-mail to the users of the library and in turn it could be returned by them giving their suggestions. And on the basis of these suggestions orders could be placed through E-mail. Since most of the libraries now use computers for house keeping activities, in addition to it if they have access to Internet also, orders could be placed by E-mail. Most of the library softwares also have provision for sending E-mail directly through the software itself.

Placement of orders through E-mail takes less time compared to the postal mode. Usually order letters prepared using library software are in digital form. In case of postal communication, printouts of the order letter will have to be taken in order to dispatch letters. Whereas in the case of E-mail, the form of letters need not be changed. The order letter in digital form itself could be included in the message or it could

be sent as an attachment. On receiving orders the vendors could also carry out their correspondence through E-mail, like intimating whether they can supply the ordered publications or not; ordering from other suppliers if they do not have the publications, etc. As a result the total transaction time would be reduced.

Case Study: A case study was carried out in order to compare the time required for correspondence using postal and E-mail mode. Acquisition unit of BARC library received a query regarding availability and price of a particular publication whose author, title and publisher were known. On July 2, 2000 at around 11.50 a.m. the query was sent through E-mail to three different vendors, viz. A, B, C in Mumbai, requesting them to provide the price and availability. Out of the three vendors, vendor C replied at 1.45 p.m. and vendor B replied at 4.30 p.m. At 3 p.m. on the same day an order was placed through E-mail with vendor C. The book was supplied the next day.

The same correspondence if carried out through postal mode, would have taken almost 19 days. Analysis of the time consumed in both the modes indicate that E-mail would save almost 90 percent of the total time required through the postal mode. Hence it is seen that usage of E-mail would result in faster procurement of the publication. Figure 1 and Figure 2 illustrate the diagrammatic representation of correspondence through E-mail and postal mode.

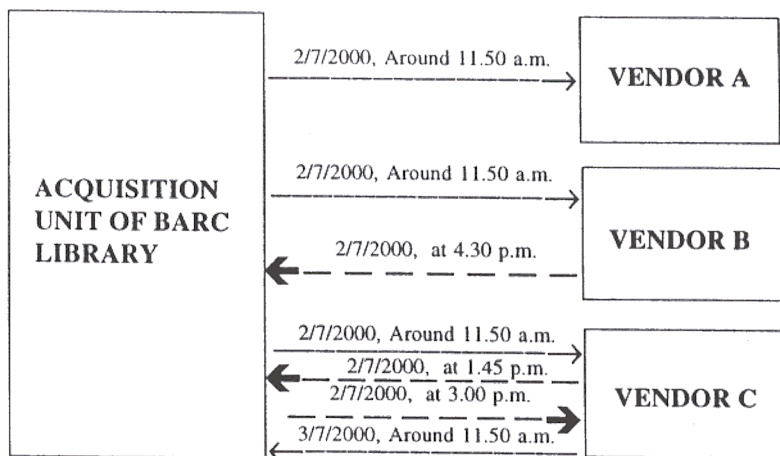


Fig. 1 Diagrammatic representation of correspondence using E-mail

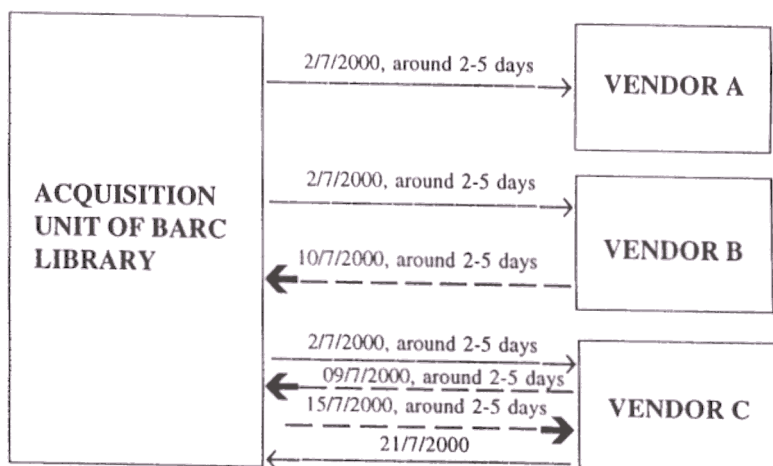
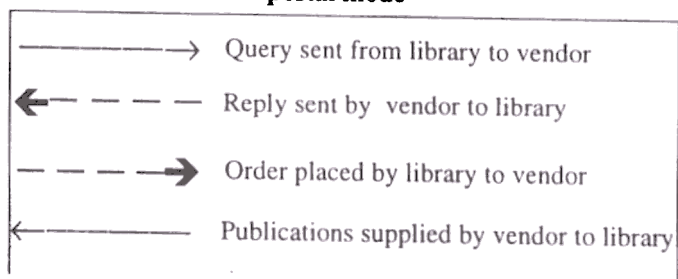


Fig. 2 Diagrammatic representation of correspondence through postal mode



Similarly other correspondences which are related to circulation, reference services, documentation services, etc. could also be carried out using E-mail at a faster rate.

4.2 Circulation

Members of the library: E-mail could be used as a tool for imparting user education,. Files could be prepared which would give information about the various library services and facilities offered, library resources and search strategies to be used in order to retrieve information from various sources of information. And the above mentioned file could be sent to the members of the library so that they are made aware of the facilities. If a library has a home page on Internet, information regarding the facilities and search strategy could be made available on home page and the members could be informed about it through E-mail.

Members can send reservation requests and library staff can intimate the member of the library about the availability of the reserved publication for issuing purposes with the help of E-mail. Reminders could also be sent to members of the library for overdue publications [7].

In case of new employees in an organisation, membership forms could be sent to the new employees through E-mail, which could be filled and returned by the employees to the library staff for allotting membership. User education files could also be sent to them through E-mail in order to motivate them.

Resource Sharing: Inter-library loan requests could be received and sent through E-mail. If the required document is available in the library then it can be scanned using a scanner and sent it to the requester as an attachment through E-mail.

4.3 Reference Service

Reference Queries: Readers can contact the reference desk either from home or from the office through E-mail without personally coming to the library and can satisfy their information needs. Various types of E-mail queries such as -

- Where to begin research on a topic
- After initial research is over, guidance for further resources on a topic
- Clarification of information available on the library's home page
- Information about library facilities and services
- Information about publications which could be requested through interlibrary loan
- Information about other sources or places that might help to answer the member's questions could be answered through E-mail [8,9]. If the query is not clear reference interviews can be conducted through E-mail. The reference librarian can also answer the queries through E-mail. If the information required by the reader is available on CD-ROM or on Internet, it can be downloaded and sent as an attachment to him, through E-mail.

WWW documents: If a reader/user is in need of some particular www documents these can also be retrieved by E-mail using www-mail

servers. Some of the www-mail servers are agora@www.undp.org; agora@mail.w3.org; webmail@www.uucc.ie. The reference librarian can E-mail to the www-mail servers and in turn the www-mail server would visit the www site and send the documents by E-mail [10].

4.4 Documentation Services

Current Awareness Service (CAS) : The most important aspect of CAS is timeliness, which could be possible using E-mail. A list of new additions to the library could be sent as attachment through e-mail to various faculties / divisions. On receiving the new additions list, the user may reserve books through E-mail. Contents page of current journals can be scanned and sent as attachments to the respective faculties. Similarly, current news on the topic of interest of the organisation could be sent to various divisions / units of the organization. For example, B.A.R.C. library receives NucNet having current nuclear news information and announcements regarding forthcoming conferences and new publications, etc. regularly through E-mail from European Nuclear Society. This news is categorised country wise and compiled as "Nuclear News Digest" [11]. The copies of this publication are circulated to various units of the Department of Atomic Energy (India) and others who are interested in nuclear research.

Selective Dissemination of Information (SDI): An SDI system is mainly based on two types of profiles, i.e. user profile and document profile which are matched to decide about the relevance of any document for an individual user. In order to carry out SDI, profile forms could be sent through E-mail to those persons to whom SDI service is to be offered. Subsequently these persons could return the filled forms to the library through E-mail indicating their topics of interest. Further search results, i.e., bibliographic details with abstracts could be sent by E-mail to the respective persons. Periodically, profiles can be returned to the users for modification, so that change of interest can be taken into consideration. Follow-up, such as copy of requested article if available in the library, could be sent through E-mail by scanning the article using a scanner. Otherwise, if the requested article is not available in the library, a copy of it could be requested through E-mail from the library which has it, or if available online, it could be downloaded from the database and sent to the user. Since CAS demands that current information be delivered as fast as possible, E-mail is the best solution for SDI in today's environment

4.5 Administrative Services

Broadcasting messages: Messages, which are to be communicated to all the users of the library, could be broadcasted using E-mail. For instance, intimating the members of the library regarding free access to web sites offered by publishers to their specific publications could be possible through E-mail. Information regarding display of special collections related to special day/week (birthdays' of famous personalities, UNO Day, etc.) can be intimated through E-mail.

Intra-library communication: Communication between the staff of the library could be carried out through E-mail without delay. Even in the absence of a colleague messages can be sent.

5 Case Study

Case study on utilisation of E-mail in a few libraries was conducted. Table 2 indicates the extent of use of E-mail in various areas of LIS in different libraries.

Table 2 . Percentage of use of E-mail in Various Areas of LIS in Different Libraries

Name of the Library	Acquisition %	Circulation %	References %	Documentation %	Administrative %
Library A	100	60	100	100	100
Library B	60	0	0	0	0
Library C	40	40	0	50	50
Library D	60	20	0	0	0
Library E	100	100	100	100	100
Library F	60	0	0	0	100

The results of the case study indicated that correspondence through E-mail in various library services is as follows : 70 % in acquisition, 37 % in circulation, 33 % in reference, 42 % in documentation and 58 % in administrative work.

On the basis of the above data and considering the infrastructure necessary for maximum utilisation of E-mail, following inferences were drawn and categorised into three groups :

- (a) *Correspondence related to inter-library communication and between library and vendors*

In case, of libraries having basic infrastructure necessary for E-mail,

it was realised that correspondence through E-mail is related to resource sharing and acquisition of publications only.

(b) Correspondence related to intra-library communication

It was understood that libraries having complete networking of the library campus in addition to the basic infrastructure necessary for E-mail, the correspondence was related to resource sharing, acquisition of publications and communication among library staff.

(c) Correspondence related to inter-library, between library and vendors, intra-library and within the organization

In addition to the basic infrastructure required for E-mail and networking of library campus, if the organisation is completely networked, then it was observed that E-mail was used in all the services viz. —acquisition, circulation, reference, documentation and administrative services of library and information centres. Apart from having the necessary infrastructure, it was also seen that there exist some kind of barriers in adopting E-mail technology to its fullest extent by the library staff. It is a known fact that continuing education plays an important role in adopting new technologies. Therefore, it is necessary that proper training in the use of E-mail should be given, pinpointing the advantages and disadvantages of the technology. Only then it would be possible to have full-fledged use of E-mail in library and information centres.

6 Conclusion

In today's IT oriented world, L&IS professionals need to adopt the latest technological tools to prove and stabilise their role as information providers. Although E-mail has originated a few decades ago, it has not been used in most of the libraries to the extent it should have been. The case study regarding comparison of time required for electronic and postal mode of communication, for acquisition of publication, indicates that E-mail is the fastest mode of communication in today's era. Visualising the advantages of E-mail, library and information professionals should harness it as an information exchange tool. It could be applied in various correspondences related to acquisition of publications, enquiries, reminders, reservations, intimations, reference queries, current awareness service, SDI, intra-library and inter-library communications as explained in the paper. This would help the library

and information professionals to provide right information to the right users at the right time, as well as to save their own time.

The case study regarding utilisation of E-mail, reveals that unless and until complete networking of the library and information centre and that of the organisation is not done, it is impossible to use E-mail in all the correspondences. There is a long felt need to have interconnectivity at University and R&D campuses spread over wide areas. Therefore, in order to use E-mail in a full-fledged manner, it is necessary that complete networking of the parent organisation and the library and information centre be done and proper training be imparted to the library staff. It is also essential that every member of the library should be provided with E-mail ID. Further, in order to motivate the new employees of an organisation, the administrative section of the organisation should provide details of the members along with the E-mail ID to the library staff.

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References

- 1 Devarai, R.S. and Kalyane, V.L., 1995. "Round the clock librarianship", In *New Vistas in Library and Information Science: Papers in honour of Professor G.V.S.L. Narsimha Rao* Editors A.A.N. Raju, L.S. Ramaiah, N. Laxman Rao and T.V. Prafulla Chandra. New Delhi : Vikas, 142-149.
- 2 Devarai, Rajashekhar S. and Devarai, Kanyakumari S., 1997. Extended library hours. *India Journal Information Library Soc.*, 10(3-4): 94-98
- 3 Kalyane, V.L. and Kalyane, S.V., 1992. Librarianship in 2000 A.D. *University News*, August 31: 73-74.
- 4 Rao, Siriginidi Subba, 1998. Coming up online: The saga of E-mail in India. *Online & CD-ROM Review*, 22(5):311-316.
- 5 Thomas, Brain J., 1995. *The Internet for scientists and engineers: Online tools and resources*. Bellingham : SPIE Optical Engineering Press.
- 6 Stair, Ralph M. and George W. Raynolds, 1998. *Principles of information systems: A managerial approach*. —3rd ed., Cambridge : Course Technology.
- 7 <http://www.lib.umich.edu/libhome/grad.lib/enotac.html>
- 8 <http://library.smc.edu/refq.html>
- 9 <http://www.nysl.nysed.gov/refserv.htm>
- 10 Murthy, C.S.R.C., "E-mail", paper presented at *Workshop on DAE vision on information exchange, BARC Mumbai, 10-11 April 1997*, 46-52.
- 11 Kalyane, V.L. (Comp.) *Nuclear News Digest*. Mumbai: Library and Information Services Division. Bhabha Atomic Research Centre 13(5) May 2000